



# FACT SHEET

Office of Water Resources- Onsite Program

## Home Improvement – Residential OWTS Suitability Determination

### What Is an OWTS Suitability Determination?

If you are considering a home renovation project you may need to upgrade or expand your septic system (Onsite Wastewater Treatment System, or OWTS). An OWTS Suitability Determination is an evaluation of your home's existing septic system to determine if it is appropriately sized for your home after the proposed renovation project is complete. You are not required to apply for an OWTS Suitability Determination but doing so can help you determine if you will need to apply to the Department of Environmental Management's (DEM) Onsite Program for a permit prior to undertaking your home renovation. It is your responsibility to ensure that your septic system is in compliance with state and local requirements.

### What Is the Purpose of an OWTS Suitability Determination?

In Rhode Island, homeowners considering home renovations may need a permit from DEM prior to undertaking any work that may affect a home's septic system. The need for an OWTS permit depends on the scope of the proposed renovations and the condition of the home's existing septic system. A homeowner can apply for an OWTS Suitability Determination to obtain a formal decision from DEM on whether or not a proposed renovation project affects the existing OWTS and therefore requires a permit from the Onsite Program.

Septic systems are sized using a daily sewage flow figure arrived at by multiplying the number of bedrooms by 115 gallons per day (assuming 2 persons per bedroom). The OWTS Rules define a bedroom as any room in a residential structure which is greater than 70 square feet in area, which is susceptible to present or future use as a private sleeping area, which has at least one window and one interior method of entry and egress, but excluding closets and bathrooms. Bedrooms must also have a way for the room to be closed off from the remainder of the residence for privacy. It is presumed that all residences contain a living room, kitchen, bathroom, and at least one bedroom. So although there may be no increase in the number of people actually occupying the residence, the addition of one or more rooms meeting the definition of a bedroom enables the residence to be *potentially* occupied by a greater number of people, thus increasing the daily sewage flow the septic system must be designed to treat.

### How Is OWTS Suitability Determined?

OWTS Suitability for a residential use depends on the size and status of your current system and on the extent of your proposed renovation project.

In general, if the septic system was installed with a state permit issued after April 9, 1968, the system is considered suitable for renovation projects that do not increase the number of bedrooms beyond what is listed in the original permit, or otherwise increase the sewage flow (for example by adding a garbage grinder in a kitchen sink or a large tub to a bathroom). However, if the renovation will change the structure's footprint such that the setback distances to the septic system are not within the Rules, then the OWTS is not suitable even if there will be no increase in sewage flow.

If the septic system was installed without state approval, was installed prior to April 9, 1968, or is a cesspool, the system is considered unsuitable and will need to be upgraded as part of the renovation project. In order to trigger the applicability of this Rule, the proposed building construction must result in one or more of the following:

- Any increase in sewage design flow to the system (i.e. addition of any bedrooms, or addition of a garbage grinder or large bathing tub);

- Demolition, replastering, replacement of interior wallboard, interior walls, ceilings, flooring, windows, plumbing fixtures, electrical wiring or kitchen cabinetry which, in total, affects more than 50% of the living area of the existing structure;
- Construction of an additional floor level or portion of a floor level of living space;
- Increases the footprint of the living space of the structure.

If your OWTS is unsuitable but your home is in an area that will be sewerred in the near future, you may be exempt from the upgrade requirements, provided that you certify the following:

- Your existing septic system has not failed;
- The proposed construction will add no more than one bedroom to the structure; and
- The municipality will extend sewers within 5 years of the date of the OWTS Suitability Determination application.

You, as the property owner, must also certify that you will connect your structure within 60 days of sewers becoming available.

### **What Is the Procedure for an OWTS Suitability Determination?**

Applications for an OWTS Suitability Determination are available at the DEM's Onsite Program offices in Room 260 at 235 Promenade St., Providence, RI, or online at <http://www.dem.ri.gov>. The form is to be filled out by the homeowner prior to any construction or modifications to the home. An instruction sheet is provided. To complete the application form, you will need to gather information from your municipality and DEM. If your current septic system does not have a state issued permit, you may need to hire a licensed designer or certified inspector to obtain the necessary information.

In addition to the application form, a written description of the project, and fee, you will need to submit 3 copies of the following:

- Your home's tax card, available from your town's municipal offices or online.
- Your existing septic system's plans and state permit, if it exists. This information is available at DEM's offices. Call (401)222-4700 to learn more about permit searches.
- A complete floor plan of your house as it exists before any modifications are performed. The floor plan must include all rooms and the approximate size of each room, even if the modification will only affect one floor. Include any garages that may be located on the property. A neat sketch is acceptable; you do not need to hire an architect or engineer to draw plans.
- A complete floor plan of your house with the proposed change(s) shown. A neat sketch is acceptable.
- A sketch of your property indicating the location of the site, the building location, existing wells or water supply lines, your existing septic tank and leachfield, and any existing subsurface drains. This information should be available on your septic system permit. You should measure the distances on this sketch, taking particular care with the distance between the leachfield and any wells.

### **What Are the Possible Outcomes of an OWTS Suitability Determination?**

**Suitable-** If DEM determines that your existing septic system is suitable for the proposed changes to your home, you can proceed with your renovation. No further application to the DEM Onsite Program is required. Note that you still may need a state wetlands permit or local building permit before you begin construction. DEM will send you and the building official in your town a copy of the OWTS Suitability Determination.

**Unsuitable-** If your existing septic system is unsuitable for the proposed changes to your home, you will need to upgrade your OWTS if you choose to continue with your project. You will need to hire a Class II or Class III (depending on the scope of your project) Licensed Designer and submit an application to the DEM Onsite Program. Design approval is required prior to construction of the system and of the renovation. More information on the different classes of designer licenses is available in the fact sheet "*Septic System Designer License Classes Explained.*" A list of

Licensed Designers is available on the DEM website at <http://www.dem.ri.gov>. DEM will send you and the Building Official in your town a copy of the OWTS Suitability Determination.

**Engineering Analysis Required-** If DEM can not determine the suitability of the existing system based on available information, an engineering analysis conducted by a Class II or III Licensed Designer will be necessary. The purpose of the analysis is to evaluate the size of the system, the separation between the system bottom and the seasonal high groundwater table, the distance between the system and features such as the residence, property lines, drains, wells, waterbodies, etc. Excavation of a test hole may be needed. The engineering analysis will be submitted to DEM and then a suitability determination can be made. In lieu of performing further studies to complete this process, or if you believe your system may need upgrading, you may elect to forego the engineering analysis and file an application for a replacement system.

**For Additional Information:**

OWTS Rules and additional program information may be obtained:

- On the DEM Onsite Program Website (<http://www.dem.ri.gov>).
- At the DEM offices, located at 235 Promenade Street in Providence.
- By contacting the Office of Water Resources at (401) 222-4700.